

Q51098  
PATENT APPLICATION

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of

Shingo NISHIKAWA, et al.

Appln. No.: 09/116,589

Filed: July 16, 1998



Group Art Unit: 2872

Examiner: A. Chang

#9  
CER

For: REFLECTION TYPE DIFFUSE HOLOGRAM, HOLOGRAM FOR REFLECTION HOLOGRAM  
COLOR FILTERS, ETC., AND REFLECTION TYPE DISPLAY DEVICE USING SUCH  
HOLOGRAMS

REQUEST FOR CORRECTED OFFICIAL FILING RECEIPT

ATTN: APPLICATION BRANCH

Assistant Commissioner for Patents  
Washington, D.C. 20231

Sir:

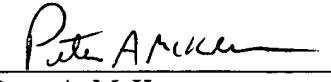
We enclose a copy of the Official Filing Receipt for the above-identified application and request the following corrections:

- Under "ATTORNEY DOCKET NO." please insert --Q51098--
- Under "FOREIGN APPLICATIONS" please insert --JAPAN 9-190970 07/16/97--

Verification for the requested corrections is indicated on the original Declaration and Power of Attorney filed January 13, 1999.

These errors were caused by the PTO and therefore no fee is necessary.

Respectfully submitted,

  
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Date: September 3, 1999

TC 2000 MAIL ROOM  
CCS 12100  
REF ID: A7521

PATENT APPLICATION  
09/116,589 (Q51098)

**ABSTRACT**

A method of fabricating a hologram having a pattern made up of pixels in which a photosensitive material for forming a hologram is stacked on either a reflection-type hologram or a transmission type hologram. According to one aspect of the invention, the photosensitive material is stacked on a reflection-type relief hologram and reconstructing illumination light of a given wavelength is struck on the reflection-type relief hologram through the photosensitive material, so that interference fringes produced by interference of the light diffracted from the reflection type relief hologram and the incident light are recorded in the photosensitive material. According to another aspect of the invention, the photosensitive material is stacked on a transmission-type hologram, and reconstructing illumination light of a given wavelength is struck on a side of the transmission type hologram that is not opposite to the volume hologram photosensitive material, so that interference fringes produced by interference of light diffracted from the transmission type hologram and reference light incident on the photosensitive material are recorded in the photosensitive material. According to a third aspect of the invention, the photosensitive material is stacked on a transmission type hologram, and reconstructing illumination light of a given wavelength is struck on a side of the transmission type hologram that is not opposite to the photosensitive material, so that interference fringes produced by interference of light diffracted from the transmission type hologram and zero-order transmitted light are recorded in the photosensitive material, and a reflecting layer is provided on a back side of the photosensitive material.

FILING RECEIPT

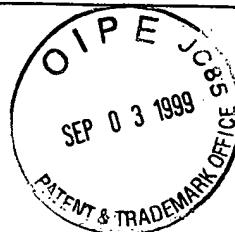
CORRECTED



UNITED STATES DEPARTMENT OF COMMERCE  
Patent and Trademark Office  
ASSISTANT SECRETARY AND COMMISSIONER  
OF PATENTS AND TRADEMARKS  
Washington, D.C. 20231

APPLICATION NUMBER	FILING DATE	GRP/ART UNIT	FIL FEE REC'D	ATTORNEY DOCKET NO.	DRWGS	TOT CL	IND CL
09/116,589	07/16/98	2872	\$3,910.00--	Q51098-	32	84	19

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2100 PENNSYLVANIA AVENUE N W  
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Receipt is acknowledged of this nonprovisional Patent Application. It will be considered in its order and you will be notified as to the results of the examination. Be sure to provide the U.S. APPLICATION NUMBER, FILING DATE, NAME OF APPLICANT, and TITLE OF INVENTION when inquiring about this application. Fees transmitted by check or draft are subject to collection. Please verify the accuracy of the data presented on this receipt. If an error is noted on this Filing Receipt, please write to the Application Processing Division's Customer Correction Branch within 10 days of receipt. Please provide a copy of the Filing Receipt with the changes noted thereon.

## Applicant(s)

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## CONTINUING DATA AS CLAIMED BY APPLICANT-

THIS APPLN IS A CIP OF 08/839,666 04/15/97

## FOREIGN APPLICATIONS-

JAPAN ✓	092518/1996 ✓	04/15/96 ✓
JAPAN ✓	123390/1996 ✓	05/17/96 ✓
JAPAN ✓	192020/1996 ✓	07/22/96 ✓
JAPAN ✓	197574/1996 ✓	07/26/96 ✓
JAPAN ✓	237857/1996 ✓	09/09/96 ✓
—JAPAN✓	9-190970	07/16/97

## TITLE

REFLECTION TYPE DIFFUSE HOLOGRAM, HOLOGRAM FOR REFLECTION HOLOGRAM COLOR FILTERS, ETC., AND REFLECTION TYPE DISPLAY DEVICE USING SUCH HOLOGRAMS

PRELIMINARY CLASS: 359

RECEIVED  
JULY 23 1999  
TC 2000 MAIL ROOM  
U.S. PATENT & TRADEMARK OFFICE

DATA ENTRY BY: THOMAS, SHEILA

TEAM: 06 DATE: 02/09/99

# FILE COPY

SERIAL NUMBER	FILING DATE	CLASS	GROUP ART UNIT	ATTORNEY DOCKET NO.
09/116,589	07/16/98	359	2872	Q51098

APPLICANT SHINGO NISHIKAWA, TOKYO, JAPAN; KENJI UEDA, TOKYO, JAPAN; TOSHIKAZU SEGAWA, TOKYO, JAPAN; TSUYOSHI HOTTA, TOKYO, JAPAN; YUKO KUWABARA, TOKYO, JAPAN; MASACHIKA WATANABE, TOKYO, JAPAN.

\*\*CONTINUING DOMESTIC DATA\*\*\*\*\*  
VERIFIED THIS APPLN IS A CIP OF 08/839,666 04/15/97 ASN.

*Yes / No*

\*\*371 (NAT'L STAGE) DATA\*\*\*\*\*  
VERIFIED

*None / No*

\*\*FOREIGN APPLICATIONS\*\*\*\*\*

VERIFIED	JAPAN	092518/1996	04/15/96
<i>Yes / No</i>	JAPAN	123390/1996	05/17/96
	JAPAN	192020/1996	07/22/96
	JAPAN	197574/1996	07/26/96
	JAPAN	237857/1996	09/09/96
	JAPAN	9-190970	07/16/97

IF REQUIRED, FOREIGN FILING LICENSE GRANTED 09/25/99

Foreign Priority claimed 35 USC 119 (a-d) conditions met	<input type="checkbox"/> yes <input type="checkbox"/> no <input type="checkbox"/> yes <input type="checkbox"/> no <input type="checkbox"/> Met after Allowance	STATE OR COUNTRY	SHEETS DRAWING	TOTAL CLAIMS	INDEPENDENT CLAIMS
Verified and Acknowledged Examiner's Initials	Initials	JPX	32	84	19

ADDRESS	SUGHRIE MION ZINN MACPEAK & SEAS 2100 PENNSYLVANIA AVENUE N W WASHINGTON DC 20037-3202
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TITLE	REFLECTION TYPE DIFFUSE HOLOGRAM, HOLOGRAM FOR REFLECTION HOLOGRAM COLOR FILTERS, ETC., AND REFLECTION TYPE DISPLAY DEVICE USING SUCH HOLOGRAMS
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FILING FEE RECEIVED \$3,910	FEES: Authority has been given in Paper No. _____ to charge/credit DEPOSIT ACCOUNT NO. _____ for the following:	<input type="checkbox"/> All Fees <input type="checkbox"/> 1.16 Fees (Filing) <input type="checkbox"/> 1.17 Fees (Processing Ext. of time) <input type="checkbox"/> 1.18 Fees (Issue) <input type="checkbox"/> Other _____ <input type="checkbox"/> Credit
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DN6655711-65  
15

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PATENT OFFICE  
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1518 U.S. PTO  
09/116589



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る事項と同一であることを証明する。

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in this Office.

出願年月日  
Date of Application:

1996年 4月15日

出願番号  
Application Number:

平成 8年特許願第092518号

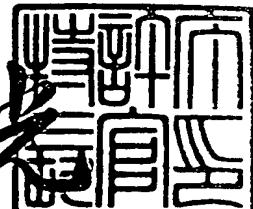
願人  
licant(s):

大日本印刷株式会社

1997年 5月 2日

特許庁長官  
Commissioner,  
Patent Office

荒井寿光



出証番号 出証特平09-3031402

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出願年月日  
Date of Application:

1996年 5月17日

出願番号  
Application Number:

平成 8年特許願第123390号

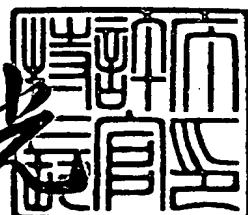
出願人  
Applicant(s):

大日本印刷株式会社

1997年 5月 2日

特許庁長官  
Commissioner,  
Patent Office

荒井 寿光



出証番号 出証特平09-3031403

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出願年月日  
Date of Application:

1996年 7月22日

出願番号  
Application Number:

平成 8年特許願第192020号

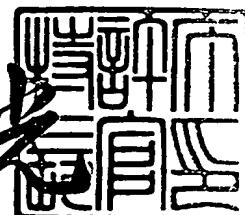
出願人  
Applicant(s):

大日本印刷株式会社

1997年 5月 2日

特許庁長官  
Commissioner,  
Patent Office

荒井 寿光



出証番号 出証特平09-3031404

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in this Office.

出願年月日  
Date of Application: 1996年 7月26日

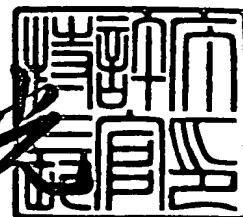
出願番号  
Application Number: 平成 8年特許願第197574号

出願人  
Applicant(s): 大日本印刷株式会社

1997年 5月 2日

特許庁長官  
Commissioner,  
Patent Office

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出証番号 出証特平09-3031405

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出願年月日  
Date of Application:

1996年 9月 9日

出願番号  
Application Number:

平成 8年特許願第237857号

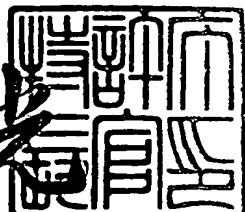
出願人  
Applicant(s):

大日本印刷株式会社

1997年 5月 2日

特許庁長官  
Commissioner,  
Patent Office

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出証番号 出証特平09-3031406